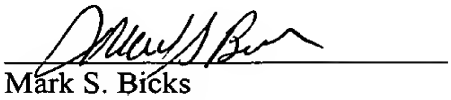
REMARKS

The above changes eliminate multiple dependency in the claims.

Respectfully submitted,



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4. Process as claimed in ~~one of the~~ claims 1 ~~to 3,~~ wherein the B-splines with at least one grid cell of the support contained entirely in the simulation region (Ω) are classified as inner B-splines.

5. Process as claimed in ~~one of the~~ claims 1 ~~to 4~~, wherein the weight point is chosen as the midpoint of a grid cell of the support of the corresponding B-spline, which is contained entirely in the simulation region.

6. Process as claimed in ~~one of the~~ claims 1 ~~to 5~~, wherein the simulation region (Ω) is defined by storage of data which can be derived from computer-aided engineering (CAD/CAM).

7. Process as claimed in ~~one the~~ claims 1 ~~to 6~~, wherein the grid width h is automatically established using stored values obtained empirically and/or analytically by a pertinent first evaluation function.

8. Process as claimed in ~~one of the~~ claims 1 ~~to 7~~, wherein a degree n is automatically determined using stored values obtained empirically and/or analytically by a pertinent second evaluation function.

9. Process as claimed in one of the steps 1 to 8, characterized by the following steps:

   - assembling (9) a system of equations to be solved in a FE simulation;
   - solving (10) the system of equations;
   - computing (11) an approximate solution; and
   - output (12) of the approximate solution.

10. Process as claimed in claim 9, wherein a multigrid process is used for the solution (10) of the system of equations.

11. Device for executing a process as claimed in ~~one of the~~ claims 1 ~~to 10~~, in particular a computer system, with input devices (31,32,33) and output devices (34), storage devices (37), and a central processing unit (35,36),

where the regular grid structure is utilized for optimizing the computational process, especially by parallelization.

12. Machine-readable data medium (18), in particular magnetic tape, magnetic disk, compact disk (CD) or digital versatile disk (DVD), wherein the data medium stores a control program for a computer system (30), according to which the computer system (30) can execute a process, as claimed in ~~one of the~~ claims 1 ~~to 10~~.